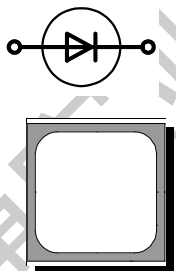


Type	Ag* Al*	V _{DRM} / V _{R_{RM}}	I _{F(AV)} [A]	Chip Size [mm] x [mm]	Package Options
DWP 21	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	1800	41	5.40 5.40	sawn on foil <input checked="" type="checkbox"/> unsawn wafer <input checked="" type="checkbox"/> * in waffle pack <input checked="" type="checkbox"/>

*Frontside options

*Please contact IXYS chip sales



Mechanical Parameters

Area active	16.31 mm ²
Area total	29.16 mm ²
Wafer size Ø	150 mm
Thickness	265 µm
Material	Si
Max. possible chips per wafer	346
Passivation front side	Glassivation
Metallization top side	solderable: Al / Ti / Ni / Ag *
top side	bondable: Al
Metallization backside	solderable (only): Al / Ti / Ni / Ag *
Recom. wire bonds (Al)	Number 4
	Ø 460 µm
Reject Ink Dot Size	Ø 0.4-1.0 mm
Recom. Storage Environment	
sawn on foil	in org. container, in dry nitrogen < 6 month
unsawn wafer	in org. container, in dry nitrogen < 2 year
in waffle pack	in org. container, in dry nitrogen < 2 year
T	-40 ... 40 °C

Features

- planar technology
- anode top
- glassivation
- soft recovery rectifier diode

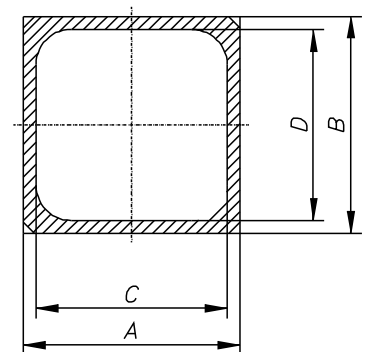
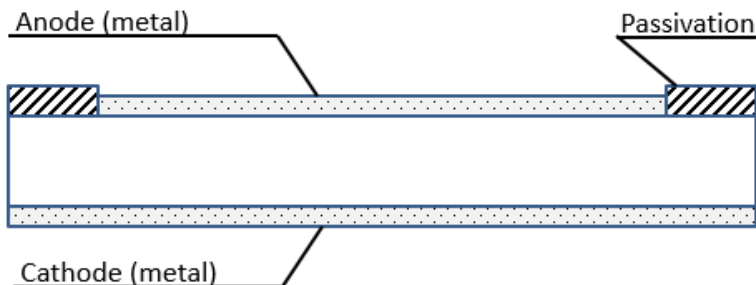
Applications

- DC Power Supplies
- Field Supply for DC motors
- Battery DC Power Supplies
- Power Rectifiers

*Sinterable top/bottom side on request

Dimensions

A	B	C	D
[mm]	[mm]	[mm]	[mm]
5.40	5.40	4	4



Electrical parameters

Symbol	Conditions	Ratings		
		min.	typ.	max.
V_D / V_R	$T_{VJ} = 25^\circ\text{C}$	1800		V
I_R	$V_R = V_{RRM}$ $T_{VJ} = 25^\circ\text{C}$			20 μA
	$V_R = 0.8 \cdot V_{RRM}$ $T_{VJ} = 150^\circ\text{C}$			1.5 mA
V_F	$I_F = 80 \text{ A}$ $T_{VJ} = 25^\circ\text{C}$			1.35 V
	$T_{VJ} = 150^\circ\text{C}$			1.34 V
V_{FO}	For power-loss calculations only			0.88 V
r_F	$T_{VJ} = 150^\circ\text{C}$			5.7 m Ω
T_{VJ}		-40		150 $^\circ\text{C}$
$I_{F(AV)}$ *	$T_C = 100 \text{ }^\circ\text{C}$ 180° rect. $T_{VJ} = 150^\circ\text{C}$		41	A
I_{FSM} *	$T_{VJ} = 45^\circ\text{C}$ t = 10 ms (50) Hz, sine			600 A
	$V_R = 0 \text{ V}$ t = 8.3 ms (60) Hz, sine			650 A
	$T_{VJ} = 150^\circ\text{C}$ t = 10 ms (50) Hz, sine			tbd A
	$V_R = 0 \text{ V}$ t = 8.3 ms (60) Hz, sine			tbd A
$I^2 t$ *	$T_{VJ} = 45^\circ\text{C}$ t = 10 ms (50) Hz, sine			1800 A s ²
	$V_R = 0 \text{ V}$ t = 8.3 ms (60) Hz, sine			1760 A s
	$T_{VJ} = 150^\circ\text{C}$ t = 10 ms (50) Hz, sine			tbd A s ²
	$V_R = 0 \text{ V}$ t = 8.3 ms (60) Hz, sine			tbd A s ²
R_{thJC} *	DC current			0.90 K/W

* Data according to assembled Chip (solderable)

Data according to IEC 60747

Note: Ir heiß von 3 --> 1.5 mA (ÄA12/13)

Terms of Conditions and Usage

The data contained in this product data sheet is exclusively intended for technically trained staff. The user will have to evaluate the suitability of the product for the intended application and the completeness of the product data with respect to his application. The specifications of our components may not be considered as an assurance of component characteristics. Should you require product information in excess of the data given in this product data sheet or which concerns the specific application of our product, please contact the sales office, which is responsible for you. Due to technical requirements our product may contain dangerous substances. For any information on the types in question please contact the sales office/partner, which is responsible for you.

Should you intend to use the product in aviation applications, in health or life endangering or life support applications, please notify. For any such applications we urgently recommend

- to perform joint risk and quality assessments;
- the conclusion of quality agreements;
- to establish joint measures to ensure application specific product capabilities and notify that IXYS may delivery dependent on the realization of any such measures.